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THE
JOHNS HOPKINS
MEDICAL SCHOOL

ESTABLISHED BY THE JOHNS HOPKINS UNIVERSITY
IN CONNECTION WITH THE JOHNS HOPKINS HOSPITAL
BALTIMORE, MARYLAND

FOURTH ANNUAL ANNOUNCEMENT
1896–97

THE JOHNS HOPKINS PRESS
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TRUSTEES OF THE JOHNS HOPKINS UNIVERSITY.

C. Morton Stewart,
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Lewis N. Hopkins,
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James Carey Thomas,
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Joseph P. Elliott,
J. Hall Pleasants,
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Robert Garrett,
James L. McLane,
W. Graham Bowdoin,
William T. Dixon,
Benjamin F. Newcomer,
The President of the University, *ex officio.*

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George W. Corner,
C. Morton Stewart,
William T. Dixon,
John E. Hurst,
James L. McLane,
Charles F. Mayer,
John A. Whitridge,
Henry D. Harlan.

FACULTY.

The names are arranged in the several groups in the order in which the members of the staff assumed their duties.

PRESIDENT.

DANIEL C. GILMAN, LL. D.

A. B., Yale College, 1852, and A. M., 1855; LL. D., Harvard University, 1876, St. John's College, 1876, Columbia College, 1887, Yale University, 1889, and University of North Carolina, 1889; Professor in Yale College, 1856–72; President of the University of California, 1872–75; Corresponding Member of the British Association for the Advancement of Science.

PROFESSORS.

WILLIAM H. WELCH, M. D., LL. D.

Professor of Pathology and Dean.

A. B., Yale College, 1870; M. D., College of Physicians and Surgeons (N. Y.), 1875; Hon. M. D., University of Pennsylvania, 1894; LL. D., Western Reserve University, 1894; Professor of Pathological Anatomy and General Pathology in the Bellevue Hospital Medical College, N. Y., 1879–84; President of the Medical and Chirurgical Faculty of Maryland, 1891–92; *Pathologist to the Johns Hopkins Hospital; Editor of the Journal of Experimental Medicine.*

IRA REMSEN, M. D., PH. D., LL. D.

Professor of Chemistry.

A. B., College of the City of New York, 1865; M. D., College of Physicians and Surgeons, N. Y., 1867; Ph. D., University of Göttingen, 1870; LL. D., Columbia College, 1893; Professor of Chemistry in Williams College, 1872-76, and previously Assistant in Chemistry in the University of Tübingen; Corresponding Member of the British Association for the Advancement of Science; *Editor of the American Chemical Journal.*

WILLIAM OSLER, M. D., F. R. C. P.

Professor of the Principles and Practice of Medicine.

M. D., McGill University, 1872; Fellow of the Royal College of Physicians, London; Professor of the Institutes of Medicine, McGill University, Montreal, 1874–84; Professor of Clinical Medicine, University of Pennsylvania, 1884–89; President of the Medical and Chirurgical Faculty of Maryland; *Physician in Chief to the Johns Hopkins Hospital; Associate Editor of the Journal of Experimental Medicine.*

HENRY M. HURD, M. D., LL. D.

Professor of Psychiatry.

A. B., University of Michigan, 1863, M. D., 1866, A. M., 1870, and LL. D., 1895; Superintendent of the Eastern Michigan Asylum, 1878–89; *Editor of the Johns Hopkins Hospital Reports, the Bulletin of the Johns Hopkins Hospital, and the American Journal of Insanity; Superintendent of the Johns Hopkins Hospital.*

WILLIAM S. HALSTED, M. D.

Professor of Surgery.

A. B., Yale College, 1874; M. D., College of Physicians and Surgeons (New York), 1877; formerly Attending Surgeon to the Presbyterian and Bellevue Hospitals, Associate Surgeon to Roosevelt Hospital, and Surgeon in Chief to the Emigrant Hospital, New York; *Surgeon in Chief to the Johns Hopkins Hospital.*

HOWARD A. KELLY, M. D.

Professor of Gynecology and Obstetrics.

A. B., University of Pennsylvania, 1877, and M. D., 1882; Associate Professor of Obstetrics, University of Pennsylvania, 1888–89; *Gynecologist and Obstetrician to the Johns Hopkins Hospital.*

FRANKLIN P. MALL, M. D.

Professor of Anatomy.

M. D., University of Michigan, 1883; Fellow of the Johns Hopkins University, 1886–88, and Assistant in Pathology, 1888–89; Adjunct Professor of Anatomy, Clark University, 1889–92; Professor of Anatomy, University of Chicago, 1892–93.

JOHN J. ABEL, M. D.

Professor of Pharmacology.

Ph. B., University of Michigan, 1883; Graduate Student, Johns Hopkins University, 1883–84; M. D., University of Strassburg, 1888; Professor of Materia Medica and Therapeutics, University of Michigan, 1891–93; *Associate Editor of the Journal of Experimental Medicine.*

WILLIAM H. HOWELL, PH. D., M. D.

Professor of Physiology.

A. B., Johns Hopkins University, 1881; Fellow, 1882–84, Ph. D., 1884; Assistant in Biology, 1884–85, Associate, 1885–88, and Associate Professor, 1888–89; Lecturer, University of Michigan, 1889–90, M. D., 1890, and Professor of Physiology and Histology, 1890–92; Associate Professor of Physiology, Harvard University, 1892–93; *Associate Editor of the Journal of Experimental Medicine.*

WILLIAM K. BROOKS, PH. D., LL. D.

Professor of Comparative Anatomy and Zoölogy.

A. B., Williams College, 1870, and LL. D., 1893; Ph. D., Harvard University, 1875; Fellow, Johns Hopkins University, 1876, Associate, 1876–83, and Associate Professor, 1883–91; Fellow, Royal Microscopical Society of London; *Editor of the Memoirs from the Biological Laboratory.*

CLINICAL PROFESSORS.

WILLIAM D. BOOKER, M. D.

Clinical Professor of Diseases of Children.

M. D., University of Virginia, 1867; Graduate Student, Johns Hopkins University, 1876–79; Attending Physician, Wilson Sanitarium, Baltimore; *Associate in Pediatrics, Johns Hopkins Hospital and Dispensary.*

JOHN N. MACKENZIE, M. D.

Clinical Professor of Laryngology.

M. D., University of Virginia, 1876, and University of the City of New York, 1877; Student, Johns Hopkins University, 1882–83, and Universities of Munich and Vienna, 1882; Clinical Professor in the University of Maryland; American Editor of the International Journal of Laryngology and Rhinology; President, American Laryngological Association, 1889; Corresponding Fellow of the Laryngological, Rhinological, and Otological Society of France; *Laryngologist, Johns Hopkins Hospital and Dispensary.*

SAMUEL THEOBALD, M. D.

Clinical Professor of Ophthalmology and Otology.

M. D., University of Maryland, 1867; Student in Vienna and London; Associate Editor, American Journal of Ophthalmology; *Ophthalmic and Aural Surgeon, Johns Hopkins Hospital.*

HENRY M. THOMAS, M. D.

Clinical Professor of Diseases of the Nervous System.

M. D., University of Maryland, 1884; Student, Johns Hopkins University, 1879–84, 1886–87, and University of Heidelberg, 1885–86; *Assistant, Johns Hopkins Hospital and Dispensary.*

LECTURER.

JOHN S. BILLINGS, M. D., LL. D.

Lecturer on the History and Literature of Medicine.

A. B., Oxford College (Ohio), 1857, and A. M., 1860; M. D., University of Cincinnati, 1860; LL. D., University of Edinburgh, 1884, Harvard University, 1886; D. C. L., University of Oxford, 1889; Hon. M. D., University of Dublin, 1892; Deputy Surgeon-General, U. S. Army (*retired*); Director of the Laboratory of Hygiene, University of Pennsylvania, 1895–96; Superintendent of the New York Public Library.

ASSOCIATE PROFESSORS.

SIMON FLEXNER, M. D.

Associate Professor of Pathology.

M. D., University of Louisville, 1889; Graduate Student in the Johns Hopkins University, 1890–91, Fellow in Pathology, 1891–92, and Associate in Pathology, 1892–95; *Resident Pathologist, Johns Hopkins Hospital.*

J. WHITRIDGE WILLIAMS, M. D.

Associate Professor of Obstetrics.

A. B., Johns Hopkins University, 1886; M. D., University of Maryland, 1888; *Associate in Obstetrics, Johns Hopkins Hospital.*

ASSOCIATES, INSTRUCTORS, AND ASSISTANTS.

JOHN M. T. FINNEY, M. D.

Associate in Surgery.

A. B., Princeton College, 1884; M. D., Harvard University, 1888; *Associate in Surgery, Johns Hopkins Hospital.*

LEWELLYS F. BARKER, M. B.

Associate in Anatomy.

M. B., University of Toronto, 1890; Fellow in Pathology, Johns Hopkins University, 1892–94; *Assistant Resident Pathologist, Johns Hopkins Hospital.*

GEORGE P. DREYER, PH. D.

Associate in Physiology.

A. B., Johns Hopkins University, 1887, Fellow in Biology, 1889–90, and Ph. D., 1890.

WILLIAM S. THAYER, M. D.

Associate in Medicine.

A. B., Harvard University, 1885, and M. D., 1889; *Resident Physician, Johns Hopkins Hospital.*

J. WILLIAMS LORD, M. D.

Associate in Dermatology and Instructor in Anatomy.

A. B., Johns Hopkins University, 1884; M. D., University of Pennsylvania, 1887; *Dermatologist to the Johns Hopkins Hospital and Dispensary.*

HENRY J. BERKLEY, M. D.

Associate in Neuro-Pathology.

M. D., University of Maryland, 1881; Student, Johns Hopkins University, 1889–91, 1893–94, and in London and Vienna, 1883–85, 1886–87; Attending Physician to the City Asylum at Bay View.

THOMAS C. GILCHRIST, M. B.

Associate in Dermatology.

M. B., University of London, 1886; M. R. C. S., London; L. S. A., London; *Dermatologist to the Johns Hopkins Hospital and Dispensary.*

ROBERT L. RANDOLPH, M. D.

Associate in Ophthalmology and Otology.

M. D., University of Maryland, 1884; Student, Johns Hopkins University, 1881–82, 1887–92; *Associate Ophthalmic and Aural Surgeon to the Johns Hopkins Hospital and Dispensary.*

WILLIAM W. RUSSELL, M. D.

Associate in Gynecology.

M. D., University of Pennsylvania, 1890; Resident Gynecologist, Johns Hopkins Hospital, 1894 95.

THOMAS B. ALDRICH, PH. D.

Instructor in Physiological Chemistry.

Ph. D., University of Jena, 1891, and Assistant in Chemistry, Jena, 1891–92.

JOSEPH C. BLOODGOOD, M. D.

Instructor in Surgery.

S. B., University of Wisconsin, 1883; M. D., University of Pennsylvania, 1891; *Resident Surgeon, Johns Hopkins Hospital.*

THOMAS S. CULLEN, M. B.

Instructor in Gynecology.

M. B., University of Toronto, 1890; *Assistant in Gynecology, Johns Hopkins Hospital.*

THOMAS B. FUTCHER, M. B.

Instructor in Medicine.

M. B., University of Toronto, 1893; Assistant Resident Physician, Johns Hopkins Hospital, 1894-95.

ADOLPH G. HOEN, M. D.

Instructor in Photo-Micrography.

M. D., University of Maryland, 1872.

FRANK R. SMITH, M. D.

Instructor in Medicine.

A. M., University of Cambridge (England), 1882; M. D., University of Maryland, 1891; Assistant Resident Physician, Johns Hopkins Hospital, 1891-93; *Chief of Medical Clinic, Johns Hopkins Dispensary.*

ALBERT C. CRAWFORD, M. D.

Assistant in Pharmacology.

M. D., College of Physicians and Surgeons (Balt.), 1893; Student, Johns Hopkins University, 1887-90, 1891-94.

GEORGE BLUMER, M. D.

Assistant in Pathology.

M. D., Cooper Medical College, 1891; Assistant Resident Surgeon, Johns Hopkins Hospital, 1893-94, and Assistant Resident Physician, 1894-95.

Assistant in Bacteriology.

GEORGE W. DOBBIN, M. D.

Assistant Demonstrator of Obstetrics.

A. B., Johns Hopkins University, 1891; M. D., University of Maryland, 1894; *Assistant Resident Obstetrician, Johns Hopkins Hospital.*

SIDNEY M. CONE, M. D.

Assistant in Surgical Pathology.

A. B., Johns Hopkins University, 1890; M. D., University of Pennsylvania, 1893; Assistant Resident Surgeon, Johns Hopkins Hospital, 1894-95.

STUDENTS, 1895-96.

Candidates for the Degree of M. D.

Third Year.

Charles Russell Bardeen. **A. B., Harvard University, 1893.**	Syracuse, N. Y.	412 *N. Broadway.*
Thomas Richardson Brown. **A. B., Johns Hopkins University, 1892.**	Baltimore.	1033 *Cathedral St.*
Cornelia Chapel Church. **A. B., Smith College, 1888.**	Pasadena, Cal.	135 *Jackson Place.*
Walter S. Davis. **S. B., Amherst College, 1893.**	Minneapolis, Minn.	935 *N. Calvert St.*
Lester Wiggins Day. **Ph. B., Yale University, 1893.**	Baltimore.	47 *W. Mt. Royal Av.*
Louis Philip Hamburger. **A. B., Johns Hopkins University, 1893.**	Baltimore.	1501 *Eutaw Place.*
Guy Le Roy Hunner. **S. B., University of Wisconsin, 1893.**	Madison, Wis.	132 *Jackson Place.*
Irving Phillips Lyon. **A. B., Yale University, 1893.**	Hartford, Conn.	910 *N. Calvert St.*
William George MacCallum. **A. B., University of Toronto, 1894.**	Dunnville, Ont.	225 *E. Biddle St.*
Charles Neil McBryde. **S. B., University of South Carolina, 1891; M. S., Virginia Agricultural and Mechanical College, 1892.**	Blacksburg, Va.	1203 *Bolton St.*
William Watson McCulloh. **A. B., Johns Hopkins University, 1889.**	Baltimore.	929 *McCulloh St.*
James Farnandis Mitchell. **A. B., Johns Hopkins University, 1891.**	Baltimore.	1013 *Cathedral St.*
Joseph Longworth Nichols. **A. B., Harvard University, 1893.**	Cincinnati, O.	225 *E. Biddle St.*
Eugene Lindsay Opie. **A. B., Johns Hopkins University, 1893.**	Baltimore.	219 *W. Monument St.*
Mary Secord Packard. **A. B., Vassar College, 1892; Harvard Summer School, 1893.**	Bayonne, N. J.	812 *St. Paul St.*
Omar Borton Pancoast. **S. B., Swarthmore College, 1893.**	Woodstown, N. J.	132 *Jackson Place.*
Clement Andariese Penrose. **A. B., Johns Hopkins University, 1893.**	Baltimore.	1318 *N. Charles St.*
Richard Pearson Strong. **Ph. B., Yale University, 1893.**	Baltimore.	*Fort McHenry.*

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Second Year.

WILLIAM STEVENSON BAER.	A. B., Johns Hopkins University, 1894.	Baltimore.	24 *N. Broadway.*
THOMAS PUMPHREY BENSON.	A. B., Johns Hopkins University, 1894.	Wellham's X Roads.	*Wellham's X Roads.*
WILLIAM JEPHTHA CALVERT.	A. B., University of Kentucky, 1893; Graduate Student, Kentucky State College, 1893–94.	Lexington, Ky.	*The Albany.*
PATRICK JOSEPH CASSIDY.	A. B., Yale University, 1894.	Norwich, Conn.	432 *N. Broadway.*
JOHN WILLIAMS COE, JR.	Ph. B., Yale University, 1893.	Meriden, Conn.	127 *Jackson Place.*
WALTER COX.	A. B., Johns Hopkins University, 1894.	Bel Alton.	1703 *E. Madison St.*
PERCY MILLARD DAWSON.	A. B., Johns Hopkins University, 1894.	Montreal, Canada.	*The Altamont.*
ARTHUR WELLS ELTING.	A. B., Yale University, 1894.	Upper Red Hook, N. Y.	412 *N. Broadway.*
WILLIAM WEBER FORD.	A. B., Adelbert College, 1893.	Norwalk, O.	912 *N. Calvert St.*
THOMAS WOOD HASTINGS.	A. B., Johns Hopkins University, 1894.	Morristown, N. J.	919 *N. Charles St.*
ALFRED BIRCH HERRICK.	A. B., Williams College, 1894.	Amsterdam, N. Y.	1727 *Fairmount Av.*
MARY MARGARET SEWALL JOHNSTONE.	A. B., Smith College, 1894; Harvard Summer School, 1894.	Newburyport, Mass.	417 *N. Charles St.*
JAMES HALL MASON KNOX, JR.	A. B., Yale University, 1892, and Ph. D., 1894.	New Haven, Conn.	13 *E. Preston St.*
MILLARD LANGFELD.	A. B., Johns Hopkins University, 1893.	Baltimore.	2226 *Eutaw Place.*
LEONA LEBUS.	S. B., Wellesley College, 1889.	Los Angeles, Cal.	135 *Jackson Place.*
GERTRUDE LIGHT.	S. B., University of Wisconsin, 1894.	Milwaukee, Wis.	711 *St. Paul St.*
FRANK ALLEMONG LUPTON.	S. B., Alabama Polytechnic Institute, 1891, and M. S., 1892; Graduate Student, Johns Hopkins University, October to January, 1893–94.	Auburn, Ala.	806 *N. Broadway.*
JAMES DANIEL MADISON.	S. B , University of Wisconsin, 1894.	Mazomanie, Wis.	127 *Jackson Place.*
HARRY TAYLOR MARSHALL.	A. B., Johns Hopkins University, 1894.	Baltimore.	1209 *St. Paul St.*
DELIA MARIA O'CONNELL.	A. B., Vassar College, 1893; Graduate Student, Mass. Institute of Technology, 1893–94.	Marlborough, Mass.	806 *N. Broadway.*
ROGER GRISWOLD PERKINS.	A. B., Union College, 1893, and Harvard University, 1894.	Schenectady, N. Y.	1128 *McCulloh St.*
KATHERINE PORTER.	A. B., Bryn Mawr College, 1894.	Baltimore.	2100 *N. Calvert St.*

Joseph Hersey Pratt. Ph. B., Yale University, 1894.	North Middleboro, Mass.	112 *Jackson Place.*
Georgiana Sands. A. B., Vassar College, 1893; Graduate Student, Barnard College (N. Y.), 1893–94.	Port Chester, N. Y.	812 *St. Paul St.*
Benjamin Robinson Schenck. A. B., Williams College, 1894.	Syracuse, N. Y.	806 *N. Broadway.*
Harry Merriman Steele. Ph. B., Yale University, 1894.	Waterbury, Conn.	*The Albany.*
Walter Ralph Steiner. A. B., Yale University, 1892, and A. M., 1895; Graduate Student, Johns Hopkins University, 1892–94.	Baltimore.	1038 *N. Eutaw St.*
Emma Elizabeth Walker. A. B., Smith College, 1887.	Parkersburg, W. Va.	417 *N. Charles St.*
Andrew Henderson Whitridge. S. B., Harvard University, 1894.	Baltimore.	18 *W. Read St.*
Katherine Margaret Wolfe. B. L. and S. B., Adrian College (Mich.), 1889; Graduate Student, Yale and Chicago Universities, 1892–94.	Tiffin, O.	514 *N. Broadway.*

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First Year.

Lawrason Brown. A. B., Johns Hopkins University, 1895.	Baltimore.	1517 *Bolton St.*
Edward Erle Brownell. Ph. B., Yale University, 1895.	Woodland, Cal.	935 *St. Paul St.*
Humphrey Warren Buckler. A. B., Johns Hopkins University, 1895.	Baltimore.	806 *Cathedral St.*
Frank Curtiss Davis. A. B., Amherst College, 1895.	Minneapolis, Minn.	935 *N. Calvert St.*
John Staige Davis. Ph. B., Yale University, 1895.	Sault Ste Marie, Mich.	517 *Cathedral St.*
Charles Phillips Emerson. A. B., Amherst College, 1894.	Methuen, Mass.	103 *Jackson Place.*
Blanch N. Epler. S. B., University of California, 1895.	Oakland, Cal.	125 *E. North Av.*
Joseph Erlanger. S. B., University of California, 1895.	San Francisco, Cal.	1640 *E. Fayette St.*
Philip Saffery Evans, Jr. A. B., Yale University, 1895.	Baltimore.	1009 *Cathedral St.*
Richard Holden Follis, Jr. Ph. B., Yale University, 1895.	San Francisco, Cal.	517 *Cathedral St.*
Frank Taylor Fulton. S. B., Knox College, 1894; A. B., Johns Hopkins University, 1895.	Warsaw, Ill.	127 *Jackson Place.*
James Daton Gallagher. A. B., Johns Hopkins University, 1895.	Steubenville, O.	112 *Jackson Place.*
Henry Harris. A. B., Leland Stanford Jr. University, 1895.	Olympia, Wash.	521 *N. Wolfe St.*
Charles Herrmann. S. B., University of Wisconsin, 1895.	Sterling, Ill.	814 *N. Broadway.*

Henry Joseph Hoye. A. B., Brown University, 1895.	Providence, R. I.	516 *N. Broadway.*
Kate McClure Johnson. Ph. B., University of Wooster, 1891.	Wooster, O.	806 *N. Broadway.*
Louis Williams Ladd. A. B., Yale University, 1895.	New Haven, Conn.	412 *N. Broadway.*
Charles Sumner Little. A. B., Wabash College, 1894.	Evansville, Ind.	110 *E. Madison St.*
John Arthur Luetscher. S. B., University of Wisconsin, 1895.	Sauk City, Wis.	127 *Jackson Place.*
Annie Galloway Lyle. A. B., Leland Stanford Jr. University, 1895.	San Francisco, Cal.	213 *W. Monument St.*
Frank Worthington Lynch. A. B., Adelbert College, 1895.	Cleveland, O.	112 *Jackson Place.*
Hugh Miller Moore. S. B. and M. S., Miami University, 1895.	Oxford, O.	1010 *N. Broadway.*
Edward Spiller Oliver. A. B., Johns Hopkins University, 1895.	Baltimore.	1725 *Bolton St.*
Charles Williams Ottley. A. B., Princeton College, 1893.	Atlanta, Ga.	1727 *Fairmount Av.*
Paul Octavius Owsley. Ph. B., Yale University, 1895.	Chicago, Ill.	517 *Cathedral St.*
Jacob Hall Pleasants, Jr. A. B., Johns Hopkins University, 1895.	Baltimore.	606 *Cathedral St.*
Sylvan Rosenheim. A. B., Johns Hopkins University, 1895.	Baltimore.	521 *N. Wolfe St.*
John Albertson Sampson. A. B., Williams College, 1895.	Troy, N. Y.	103 *Jackson Place.*
Halbert Severin Steensland. S. B., University of Wisconsin, 1895.	Madison, Wis.	814 *N. Broadway.*
William Ridgely Stone. A. B., Princeton College, 1895.	Washington, D. C.	113 *W. Mulberry St.*
Edgar Randolph Strobel. A. B., Johns Hopkins University, 1895.	Baltimore.	1713 *E. Baltimore St.*
Frederick Herman Verhoeff. Ph. B., Yale University, 1895.	Louisville, Ky.	935 *St. Paul St.*
William Whitridge Williams. A. B., Johns Hopkins University, 1895.	Baltimore.	1128 *Cathedral St.*
Charlotte Augusta Wolcott. A. B., Smith College, 1886.	Longmeadow, Mass.	812 *St. Paul St.*
Sarah Delia Wyckoff. S. B., Wellesley College, 1894.	Dayton, O.	1910 *E. Madison St.*
Lawrence Yates. Ph. B., Yale University, 1894; S. B., University of Wisconsin, 1895.	Milwaukee, Wis.	935 *St. Paul St.*

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ENDOWMENT.

The Medical Department of the Johns Hopkins University was opened for the instruction of students October 2, 1893.

The founder of the Johns Hopkins University, in devoting his large fortune to the establishment of the university and the hospital, had in view the organization of a school of medicine. In his letter addressed to the Trustees of the hospital, dated March 10th, 1873, these significant words occur:

"It will be your especial duty to secure, for the service of the hospital, surgeons and physicians of the highest character and greatest skill. . . . In all your arrangements in relation to this hospital, you will bear constantly in mind that it is my wish and purpose that the institution shall ultimately form a part of the Medical School of the University for which I have made ample provision by my will."

When the University was opened in 1876, arrangements were made for instruction in those sciences, such as physics, chemistry, and biology, which lead up naturally to the professional study of medicine. In 1884 the professorship of pathology was filled and the pathological laboratory was opened. In 1889 the Johns Hopkins Hospital was opened, and the physician, surgeon, and gynecologist in chief to the hospital were appointed to the professorships respectively of medicine, surgery, and gynecology and obstetrics. At the same time the professor of psychiatry was appointed. Opportunities for instruction were afforded to graduates in medicine. Ampler endowment, however, was needed to complete the organization of a medical department.

Gifts amounting to $111,731.68, most of which were offered to this University in October, 1890, by a committee of women, and an additional gift of $306,977, offered to the University in December, 1892, in addition to her previous subscriptions, by Miss Mary Elizabeth Garrett, made up, with other available resources, the amount of $500,000, which had been agreed upon by the Trustees as the minimum endowment of the Medical Department. These contributions were made upon condition that women be received upon the same terms as men. This endowment enabled the Trustees to complete the organization of the Medical Department and to open it for instruction in 1893.

The School of Medicine is an integral part of and under the direction of the Johns Hopkins University. It derives great advantages from its close affiliation with the Johns Hopkins Hospital.

REQUIREMENTS FOR ADMISSION.

The Medical Department of this University is planned for the professional education of those students who have been especially fitted to receive its instructions by a course of preliminary training in the liberal arts, and in those branches of science, such as physics, chemistry, and biology, which underlie the medical sciences. Men and women are admitted upon the same terms.

As candidates for the degree of Doctor of Medicine the school receives:

1. Those who have satisfactorily completed the Chemical-Biological course which leads to the A. B. degree in this university.
2. Graduates of approved colleges or scientific schools who can furnish evidence: (*a*) That they have acquaintance with Latin and a good reading knowledge of French and German; (*b*) That they have such knowledge of physics, chemistry, and biology as is imparted by the regular minor courses given in these subjects in this university.

The phrase "a minor course," as employed in this university, means a course that requires a year for its completion. In physics, four class-room exercises and three hours a week in the laboratory are required; in chemistry and biology four class-room exercises and five hours a week in the laboratory in each subject.

Many inquiries have been received regarding the character and amount of the requisite training indicated by the term "Minor Course" in these sciences. In explanation, it may be stated, with respect to Biology, that the candidate should have followed for at least a year a laboratory course in the structure, life history, and vital activities of selected types of animal and vegetable life. In the Chemical-Biological course for undergraduates in this university the laboratory work in biology at present includes the study of such types as amœba, hæmatococcus, yeast, penicillium, bacteria, mushroom, hydra, vorticella, a fern, a flowering plant, the earthworm, lobster, anodon; the gross and minute anatomy of the frog, the development of its eggs, the structure, formation, and metamorphoses of the tadpole; the study and drawing of the bones of the human skeleton; the comparison of some parts of related vertebrate skeletons; dissection of a mammal; the field and laboratory study of some few flowering plants. The laboratory work is the more important part, the lectures and other exercises subsidiary. It is, of course, not to be understood that this curriculum of biological work must be rigidly followed. Courses in botany and in zoölogy will be accepted as equivalent to the minor course in biology in this university, provided the work in the laboratory has been adequate. It is important that the candidate should show ability to observe natural objects, to record the observations in words and by drawings, and to use the microscope.

The candidate should have followed a course in general Chemistry for at least a year. This course should include laboratory work, about five hours a week through one year, and lectures and class-room work covering the outlines of inorganic chemistry and the elements of organic chemistry. A good knowledge of the subject as presented in Remsen's "Introduction to the Study of Chemistry" may be regarded as the minimum requirement. A fuller knowledge of Chemistry is, of course, desirable.

In Physics, the candidate should have followed a collegiate course for at least one year. This should include four hours a week of class-room work and at least three hours a week of quantitative work in the laboratory. Special attention should be given to theoretical mechanics and to the mechanical and electrical experiments.

3. Those who give evidence by examination that they possess the general education implied by a degree in arts or in science from an approved college or scientific school, and the knowledge of French, German, Latin, physics, chemistry, and biology above indicated.

Applicants for admission will receive blanks to be filled out relating to their previous courses of study.

They are required to furnish certificates from officers of the colleges or scientific schools where they have studied, as to the courses pursued in physics, chemistry, and biology. If such certificates are satisfactory, no examination in these subjects will be required.

Candidates who have not received a degree in arts or in science from an approved college or scientific school, will be required to pass, at the beginning of the session, first the matriculation examination for admission to the collegiate department of the Johns Hopkins University, and then examinations equivalent to those passed by students completing the Chemical-Biological course which leads to the A. B. degree in this University.

No one will be admitted to advanced standing without furnishing evidence that these terms of admission as regards preliminary training have been fulfilled, and that courses equivalent in kind and amount to those given here, preceding that year of the course for admission to which application is made, have been satisfactorily completed.

Hearers, not candidates for a degree, will be received at the discretion of the Faculty.

GENERAL PLAN OF INSTRUCTION.

The course of instruction is planned for those who have received a liberal education and the training in physics, chemistry, and general biology which has been specified. The required period of study for the degree of Doctor of Medicine is four years. The academic year begins on the first of October and ends about the middle of June. There are short recesses at Christmas and Easter.

The first two years of the course are devoted mainly to the fundamental medical sciences, a large part of the time being spent in practical work in the laboratories. In the latter two years medicine, surgery, obstetrics, and the various specialties are studied in the Clinical Laboratories, the Dispensary, and the wards of the Hospital.

The principal studies of the first year are anatomy, including normal histology, microscopic anatomy, embryology, physiology, and physiological chemistry. The study of anatomy and of physiology is continued in the second year. Throughout the second year general pathology, pathological anatomy, and pharmacology are studied. A practical course in bacteriology, with the chief emphasis upon its hygienic and pathological bearings, is given during three months of this year.

Upon the basis of thorough training in the medical sciences, pursued during the first two years of the course, the student should now be well fitted to undertake the study of practical medicine and surgery.

During the third year the general principles of medicine, surgery, and obstetrics are studied, and clinical instruction in medicine and surgery is given. The study of certain special branches of medicine is also begun. Leading features of the work of this year are the courses in the Clinical Laboratories and practical work in the Dispensary.

During the fourth year the practical study of medicine, surgery, and obstetrics is continued, and instruction is given in gynecology and the various special branches of medicine and surgery, viz: dermatology, diseases of the nervous system, genito-urinary diseases, laryngology, ophthalmology and otology, paediatrics, and psychiatry. In this year the students serve as clinical clerks and surgical dressers in the wards of the Hospital and are in daily attendance at special classes in the Dispensary. They will also attend cases of labor in the obstetrical wards of the Hospital, and, under proper supervision, in the homes of patients. For the ward and dispensary work the class is divided into small groups.

Instruction in hygiene, legal medicine, and medical history is provided during the course.

Work in the dissecting room, in the laboratory, and at the bedside, demonstrations, clinics, lectures, and recitations are the main features of the methods of instruction. Simply didactic lectures occupy a subsidiary position, as compared with instruction by recitations and demonstrations and especially by practical work in the various laboratories, in the Hospital wards, and in the Dispensary. In consequence of the high standard of admission, the classes are not likely to be excessively large, and abundant opportunity is therefore afforded for practical work for each student and for personal contact between teacher and student.

LABORATORIES AND CLINICAL OPPORTUNITIES.

The nature of the practical work requires that each student, during each year of the course, shall be supplied with a microscope. Every student is recommended to purchase a microscope. Each student who does not possess a microscope is furnished with one which he retains for his own use throughout the academic year, at a yearly rental of five dollars.

The Physiological Laboratory is in the Biological Building of the University, which is a large four-story structure well arranged and equipped for its special purposes.

The Anatomical and the Pharmacological Laboratories occupy the Women's Fund Memorial Building, which was erected in 1894 upon a large plot of ground owned by the University opposite the Hospital. This is a commodious building, three stories in height, constructed for the accommodation of the various anatomical laboratories. In the basement is a cold-storage plant for the preservation of bodies for dissection. The first story is for the present occupied by the department of pharmacology, which is well supplied with the necessary collections and apparatus for the practical and experimental study of this subject. The two upper stories are fitted up with all the necessary apparatus for instruction and research in embryology, histology, and gross anatomy. Instead of one large dissecting room, there are a number of small dissecting rooms, which thus afford the best opportunity for the work for which they are intended. There is a good collection of anatomical preparations, models, casts, and diagrams available for the use of students. This building contains rooms for photomicrography and for dark-room projections.

The Pathological Laboratory is a four-story building on the grounds of the Hospital. This building contains the morgue and the autopsy theatre, the pathological museum, and rooms for instruction and research in bacteriology, pathological histology, and experimental pathology. The class rooms are commodious and well lighted. There is ample supply of material for study in all departments of pathology and in bacteriology.

The Laboratory of Physiological Chemistry occupies for the present the third story of the Pathological Building.

The Clinical Laboratories are in the Hospital buildings. The Hospital has recently received a generous gift of money for the construction and equipment of a clinical laboratory. It is expected that the new building will be ready for use in the autumn of 1896.

Abundant clinical material is afforded by the Johns Hopkins Hospital and Dispensary. The Medical Department of the University is in close connection with the Hospital, and derives signal advantages from the resources of this institution. The clinical amphitheatre and operating rooms are in the Hospital buildings.

The new lying-in department of the Hospital will be in operation in the autumn of 1896.

Practical instruction in the study of mental diseases is given by the Professor of Psychiatry and the Associate in Neuro-Pathology in the City Asylum at Bay View.

In the main building of the Hospital is a medical library with full sets of medical periodicals. The various special laboratories possess also appropriate libraries. These, as well as the libraries and reading room of the University and those of the Peabody Institute, are available without charge for the use of medical students.

Three associations, the Hospital Medical Society, the Historical Club, and the Journal Club, which are open to students, meet in the Assembly Room of the Hospital, one each Monday evening throughout the academic year.

COURSES OF INSTRUCTION.

The following statements are designed to exhibit the opportunities and the character of the instruction and practical work in each department. Schedules of the hours and other details of the exercises are furnished to the students at the beginning of each annual session.

ANATOMY.

The instruction in Anatomy is in charge of Dr. Franklin P. Mall, Professor of Anatomy, with the aid of Dr. Lewellys F. Barker, Associate in Anatomy, and Dr. J. Williams Lord, Instructor in Anatomy.

The course in Anatomy consists of vertebrate embryology, histology and histogenesis, and gross and microscopic human anatomy. The course in histology is completed during the first year. That in gross anatomy begins, in October of the first year, with osteology and continues with practical anatomy during the first and second years. It is recommended that the student complete the greater part of one dissection of the body during the first academic year.

The instruction in histology and microscopic anatomy consists mainly of practical work in the laboratory, but it is supplemented by a series of morning lectures with demonstrations, exhibitions of charts and models, and dark-room projections. The course begins October first and continues until March fifteenth. The regular class work is arranged so as to occupy three full forenoons each week and additional time is provided for special work in technique and for recitations. The elementary tissues are studied chiefly by teasing, dissecting, macerating, and digesting, in the early part of the course, and later the architecture of the organs and the search for morphological units in these are taken up. In the study of the organs emphasis is laid on the naked-eye appearances of the tissues, and the student is at all times urged to pass as gradually as possible from the macroscopic appearances to the microscopic pictures as seen with high powers. The work which the student has before him in subsequent years is borne in mind and extensive use is made of human tissues. Throughout, the attempt is made to direct the student's training along the lines which will be most serviceable to him in his physiological and pathological studies.

The course terminates with the finer anatomy and histology of the central nervous system and the sense organs, to which six weeks' time is allotted and during which the student is familiarized with some of the modern methods of neurological investigation. Text-books in English, French, and German are used in the course, and the student is referred to original articles in the literature in each department of the subject and is encouraged to read and abstract some of them.

In connection with the work in histology, considerable attention is paid to the morphological and histogenetic relations of the tissues, with the aim of throwing as much light as possible upon the developmental relations of the tissues and the bearing of these upon human anatomy in general.

From March 15 to June 1 considerable time is available for review or for additional work in this subject.

Parallel with the above course that on Human Anatomy is given.

The anatomical course begins the first of October with demonstrations and recitations in osteology. A complete set of bones is loaned to each student for the first year to enable him to become well acquainted with the bones of the human body.

Human anatomy is taught in the dissecting-room, as soon as the cool weather sets in. The laboratory is furnished with a cold storage apparatus, which provides a constant and abundant supply of excellent anatomical material.

The work of each student is conducted independently of that of all others. It is continuous until he has dissected and studied the whole body, and then he may rework any portion of the body or undertake special dissections. During the winter months of the first two years of the course sufficient time is available for the thorough study of anatomy by dissections.

Applied anatomy is taught by the professors or instructors in various practical branches of medicine and surgery.

In addition to the systematic courses given in anatomy, every opportunity is offered to advanced students who are prepared to undertake original investigations. The laboratory is well provided with apparatus and material for experimentation upon animals, as well as for research in vertebrate embryology, histology, neurology, and anatomy. The new anatomical laboratories in the Women's Fund Memorial Building are large enough to meet all these requirements. There is an abundance of well lighted and well ventilated rooms. There are many models and charts, a cold storage apparatus for the preservation of anatomical material, and an extensive photographic outfit.

PHYSIOLOGY.

The instruction in Physiology is under the charge of Dr. William H. Howell, Professor of Physiology, assisted by Dr.

George P. Dreyer, Associate in Physiology. The course extends from January 1 of the first year to January 1 of the second year.

The work consists of lectures, experimental work in the laboratory, demonstrations, and recitations. The lectures are fully illustrated by experiments and demonstrations given in the lecture-room. Weekly recitations are held upon the subject-matter covered by the lectures.

The laboratory course is arranged to occupy six hours a week for about twelve weeks. In this course the students are required to perform the simpler experiments upon muscle, nerve, circulation, and vision, making use of the various graphic methods employed in physiology. The work is intended to give an idea of the methods used in experimental physiology, and to furnish also that basis of actual acquaintance with facts which is necessary for intelligent reading.

In addition to the foregoing exercises, which comprise the required work, students are given opportunities to participate in the more advanced courses carried on in the laboratory, and intended primarily as graduate work. These courses are as follows: A physiological journal club meets weekly to discuss the recent literature in animal physiology and histology. A physiological seminary meets weekly during the year. The object of the seminary work is to study carefully by means of lectures or readings some special part of physiology. The topics chosen vary each year. An advanced course of laboratory work is arranged,—intended to teach the methods of physiological demonstration and research. This course is under the control of the professor of physiology, and is not limited as to time or amount of work, with the exception that assistance from the professor must be arranged for by definite engagements. It is designed for those who expect to become teachers or investigators in physiology, pathology, or pharmacology, and the number permitted to take it is necessarily limited. For purposes of research the laboratory is well equipped.

Physiological Chemistry.

The instruction in Physiological Chemistry is under the charge of Dr. John J. Abel, Professor of Pharmacology, and of Thomas B. Aldrich, Ph. D., Instructor in Physiological Chemistry, with the aid of an assistant.

Instruction in this branch is given by laboratory work, illustrated lectures, and conferences of a less formal character. The work in the laboratory begins the first of March and continues, with daily exercises, until the end of the first year of the course.

In the lectures the substances that have been isolated from the fluids and tissues of the body are considered chiefly with regard to their connection with physiological processes. The physical and chemical properties of these substances and their chemical relationships also receive due attention whenever they promise to throw light on animal metabolism, for it is thought that a treatment of the subject which emphasizes the chemical properties of the constituents of the body, will best prepare the student to meet important questions that will arise later in his study of pathology, pharmacology, hygiene, and practical medicine.

The laboratory instruction covers the following ground:

1. The isolation of the more important constituents of the various tissues and fluids of the body, of its secretions and excretions in health and in disease, and the study of such of the physical and chemical properties of these constituents as are of most importance from the physiological point of view.
2. Selected qualitative and quantitative methods employed in the study of the various tissues, the products of gastric and pancreatic digestion, the urine, blood, bile, biliary and renal calculi, milk, pus, and faeces.
3. The synthetic formation of some of the constituents of the body, such as urea, uric acid, hippuric acid, cholin, leucin, etc.,—when the student has completed the work under 1 and 2.

PHARMACOLOGY AND TOXICOLOGY.

The instruction in Pharmacology is under the direction of Dr. John J. Abel, Professor of Pharmacology, with the aid of Dr. Albert C. Crawford, Assistant in Pharmacology. The instruction is given in the second year of the course by illustrated lectures and by laboratory work. Pharmacology is taught by both lectures and experiments, and students will themselves arrange apparatus and perform experiments under the immediate supervision of the professor in charge, or of his assistant.

The practical work includes such topics as the action of drugs on the heart, vessels and vasomotor apparatus, on the respiratory apparatus, brain and spinal cord, voluntary and involuntary muscles, kidneys, salivary and sweat glands, intestines, liver, etc. The chemical side of Pharmacology also receives due attention. The fate of drugs in the organism, their influence on the metabolism of the body and the manner of their excretion are fully treated in lectures and illustrated whenever possible.

A course of lectures, with demonstrations in Toxicology, is given in the second half-year.

Pharmacy is also treated in a short course of illustrative lectures.

Actual practice in prescribing and dispensing drugs and in the employment and application of the various therapeutic agents used in medicine is obtained in connection with the practical clinical work of the third and fourth years.

PATHOLOGY AND BACTERIOLOGY.

The instruction in Pathology and Bacteriology is under the charge of Dr. William H. Welch, Professor of Pathology, with the coöperation of Dr. Simon Flexner, Associate Professor of Pathology, of Dr. George Blumer, Assistant in Pathology, and of an Assistant in Bacteriology.

General and Special Pathological Anatomy, General Pathology, and Bacteriology are taught by lectures, recitations, demonstrations, and laboratory work. Instruction is given in the methods of making post-mortem examinations and of recording in proper protocols the results. These courses continue throughout the second year. The laboratory work occupies three half-days a week throughout the year.

The Autopsies are held in the Pathological Building and are witnessed by the students of the second, third, and fourth years.

The course in Bacteriology precedes that in Pathology. It begins in October and continues for three months, occupying three half-days a week. It is a practical laboratory course in which the students become familiar with the preparation of culture media, the principles of sterilization and disinfection, the methods of cultivating, staining, and studying bacteria, the biological examination of air, water, and soil, and the important species of known pathogenic micro-organisms. The hygienic, as well as the pathological, relations of bacteriology are considered. A course of lectures devoted mainly to the consideration of infection and immunity is given during the period of practical work in bacteriology.

The principal subjects in General Pathology are taken up systematically and taught as far as practicable by actual demonstration and experiments. Gross Morbid Anatomy is studied at the autopsy table and by demonstration of fresh and preserved specimens. Pathological Histology is taught as a part of Pathological Anatomy, the description and demonstration of gross lesions being accompanied by the microscopical examination of the same lesions. Much use is made of frozen sections of fresh organs. The course begins with the study of inflammation, and in regular order the pathological anatomy and histology of the different tissues and organs of the body are taken up. Microscopical sections are given to be stained, mounted, and carefully studied and drawn. Instruction in the technique of making pathological examinations, including the methods of pathological histology, and practice in pathological diagnosis are afforded.

A recitation is held once a week throughout the year. Didactic lectures are given upon subjects which can not be satisfactorily treated in the laboratory.

In addition to the courses for undergraduate students, opportunity is afforded for advanced work and special research in Pathological Histology, Experimental Pathology, and Bacteriology. For these purposes the Pathological Laboratory is well equipped with the necessary apparatus and material.

MEDICINE.

The instruction in this department is under the charge of Dr. William Osler, Professor of Medicine, with whom are associated Dr. W. D. Booker, Clinical Professor of the Diseases of Children, Dr. H. M. Thomas, Clinical Professor of Diseases of the Nervous System, Dr. W. S. Thayer, Associate in Medicine, and Drs. Frank R. Smith and T. B. Futcher, Instructors in Medicine.

The teaching is in the Dispensary, in the Clinical Laboratory, and in the Wards.

The work of the third year is as follows:

I. Demonstrations in Medical Anatomy and Physiology. These comprise a review of the Topographical Anatomy of the viscera, and a consideration of the normal functions and physical signs of the organs in health, so far as they relate to practical medicine.

II. Instruction in History-taking. After a brief didactic introduction, the students learn the method of history-taking, by obtaining the anamnesis of patients in the Dispensaries.

III. The Practical Study of the Symptoms and Signs of Disease. The work of the year consists largely in a systematic study of the symptoms of disease. For this purpose the patients in the Medical, Neurological, and Children's Dispensaries are utilized. The teaching is objective and practical. The student learns the use of the instruments of precision employed in clinical research—the Stethoscope, Microscope, Opthalmoscope, etc.—by daily routine manipulations.

IV. Clinical Laboratory. During two afternoons of the week throughout the session, the class meets the instructor in the Clinical Laboratory and studies systematically the methods of examining the urine, sputum, blood, fæces, gastric juices, etc.

V. Recitations. At stated intervals recitations are held in which the progress of the student is tested, and in which theoretical considerations are discussed.

The work of the fourth year will consist of:

I. General Medicine.

1. Ward-work, in which the students, acting as clinical clerks, will be assigned beds and take the histories of new cases as admitted, and be responsible (under the direction of the house physician and the first assistant) for the ward notes.
2. Ward Classes. The students will make the visit with Professor Osler on three days of the week at 9 a. m., and in this way will be enabled to study in a routine manner the progress of the cases. Special instruction will be given in the methods of treating diseases.
3. Recitations. (Drs. Osler, Booker, Thomas, and Thayer).

II. Diseases of Children. (Professors Osler and Booker).

The students will be assigned in groups to the Children's Dispensary. Professor Booker will also hold a clinic and recitation weekly, and direct the reading of the class on the subject.

III. Diseases of the Nervous System. (Professors Osler and Thomas).

The students will go in groups to the Neurological Dispensary and study the cases, as they appear, under the direction of Professor Thomas, who will also hold a clinic and recitation weekly.

SURGERY.

The instruction in Surgery is in charge of Dr. William S. Halsted, Professor of Surgery, assisted by Dr. J. M. T. Finney, Associate in Surgery, by Dr. Joseph C. Bloodgood, Instructor in Surgery, by Dr. Sidney M. Cone, Assistant in Surgical Pathology, and by an Assistant in Genito-Urinary Diseases.

The teaching is in the Dispensary, in the Wards of the Hospital, and in the Laboratory of Surgical Pathology.

The principal work of the third year relates to surgical pathology, surgical diagnosis, and the general principles of surgery. It includes:

I. Surgical Pathology. The macroscopical and microscopical appearances of the different stages of repair of wounds under various conditions are studied. Pathological material from the operating rooms is regularly assigned to students for examination. Practice is afforded in the macroscopical and microscopical diagnosis of tumors and in surgical bacteriology.

II. Minor Surgery is taught in the Dispensary, where the student is brought into personal contact with the patients and gains practical experience in the application of surgical dressings and apparatus and, in general, in the treatment of surgical cases.

III. Clinical Surgery. The students attend a weekly clinic by Professor Halsted.

IV. Operative Surgery. This is taught by practical exercises.

V. Weekly Recitations.

The work of the fourth year will consist of:

I. Ward work. The students will be assigned beds and take the history of cases, acting as surgical dressers.

II. Ward classes. The students will make morning visits to the wards with the surgeon, and will receive bedside instruction, thus having opportunity to become familiar with the management and progress of surgical cases.

III. Surgical Diagnosis. There will be a weekly exercise in which cases will be presented for diagnosis.

IV. Clinical Surgery. The students will attend two clinics weekly.

V. There will be opportunity for the continuance of the study of surgical pathology and of practice in operative surgery.

VI. Recitations.

OBSTETRICS.

The instruction in Obstetrics is given in the third and fourth years by Dr. J. Whitridge Williams, Associate Professor of Obstetrics, assisted in the clinical work by the Obstetrical Assistants of the Hospital, as follows:

In the third year, five to seven hours a week are devoted to the theoretical teaching of Obstetrics. The time is divided between:

I. Didactic lectures.

II. Laboratory instruction in the anatomy, histology, and pathology of the female generative organs, from an obstetrical point of view, and the pathology of the various diseases of pregnancy, labor, and the puerperal state, as well as the various diseases of bone, which play so important a part in the production of deformed pelves.

III. Demonstration of the various operative procedures upon the mannikin, with practical exercises by the students.

IV. Recitations.

In the fourth year, the greater part of the work will be practical.

I. The students will be divided into small groups for practical clinical instruction in the lying-in ward.

II. They will also be required to attend, under proper supervision, a definite number of poor women at their own homes.

III. There will be weekly meetings of the class for clinical conference, in which cases which have been observed by the students will be discussed and criticised and practical lessons drawn from them. At the same time recitations will be held, which will be accompanied by illustrative demonstrations by the students upon the mannikin and with the microscope.

IV. In the early part of the year, there will be a short course of lectures upon Teratology.

GYNECOLOGY.

The instruction in Gynecology is in charge of Dr. Howard A. Kelly, Professor of Gynecology and Obstetrics, assisted by Dr. W. W. Russell, Associate in Gynecology, and by Dr. T. S. Cullen, Instructor in Gynecology. The teaching of this subject is in the fourth year of the course, and will consist of work in the Dispensary, in the Hospital Wards and Operating Rooms, and in the Laboratory. Instruction will be given in the care of cases in the Wards and in the Dispensary, in gynecological examinations under ether, in minor and major gynecological operations, and in gynecological pathology. The students, divided into small groups, will be in daily attendance during two months in the gynecological dispensary. There will be weekly clinics and recitations.

SPECIAL DEPARTMENTS OF PRACTICAL MEDICINE AND SURGERY.

Instruction in these various special departments will be given mainly in the fourth year. For the Ward and Dispensary work the class will be divided into sections, so arranged that each section will be in daily attendance during two months upon a dispensary class in the morning from 10.30 to 12 o'clock, and upon another in the afternoon from 2 to 3.30. At 12 and at 3.30 there will be a daily clinic, lecture, or recitation in one of the special branches.

The students will perform their work in General Medicine, General Surgery. Obstetrics, and Gynecology in the Hospital wards before 10.30 a. m. By this arrangement and by rotation, each group of students in the fourth year will have two months of daily practical ward work in Medicine, Surgery, Obstetrics, and Gynecology, and two months of daily dispensary work in Dermatology, Diseases of Children, Diseases of the Nervous

System, Genito-Urinary Diseases, Gynecology, Laryngology and Rhinology, and Ophthalmology and Otology. In addition, the entire class will have two hours each day for a clinic, lecture, or recitation in these special departments.

DERMATOLOGY.

The instruction in this department is in charge of Dr. J. Williams Lord and Dr. Thomas C. Gilchrist, Associates in Dermatology, and consists of:

I. A weekly Clinic or Recitation.
II. Daily work in the Dispensary for two months for each group of students in the fourth year.

DISEASES OF CHILDREN.

Dr. William D. Booker, Clinical Professor of Diseases of Children.

(See under Medicine.)

DISEASES OF THE NERVOUS SYSTEM.

Dr. Henry M. Thomas, Clinical Professor of Diseases of the Nervous System.

(See under Medicine.)

GENITO-URINARY DISEASES.

This department is in charge of the Professor of Surgery and an Assistant. There will be:

I. A weekly Clinic or Recitation.
II. Daily work in the Dispensary for two months.

LARYNGOLOGY (including diseases of the Nose and Pharynx).

The instruction in this department is in charge of Dr. John N. Mackenzie, Clinical Professor of Laryngology. There will be:

I. A weekly Clinic or Recitation.
II. Daily work in the Dispensary for two months. Practical instruction in the use of the laryngoscope and rhinoscope will be given.

OPHTHALMOLOGY AND OTOLOGY.

Instruction in this department will be given by Dr. Samuel Theobald, Clinical Professor of Ophthalmology and Otology, and Dr. Robert L. Randolph, Associate in Ophthalmology and Otology. There will be:

I. A weekly Clinic or Recitation.

II. Daily work in the Dispensary for two months. There will be practical instruction in the use of the ophthalmoscope.

PSYCHIATRY.

The instruction in Diseases of the Mind is in charge of Dr. Henry M. Hurd, Professor of Psychiatry, and of Dr. Henry J. Berkley, Associate in Neuro-Pathology. There will be a course of lectures, recitations, and clinical demonstrations by Professor Hurd and Dr. Berkley, and the students will visit the wards of the City Asylum at Bay View, where they will have opportunity to study the various forms of insanity.

HISTORY AND LITERATURE OF MEDICINE.

Lectures upon this subject are given by Dr. John S. Billings, Lecturer on the History and Literature of Medicine.

HYGIENE.

Instruction in Hygiene is included in the courses in Pathology and Bacteriology and in Physiological and Hygienic Chemistry.

LEGAL MEDICINE.

This subject will receive attention in the courses in Pathological Anatomy and in Toxicology. Arrangements are contemplated also for more special instruction in medical jurisprudence.

SPECIAL LECTURES.

It is expected that arrangements will be made for short courses by specially appointed lecturers on certain selected topics.

EXAMINATIONS.

At the end of the first year examinations in physiological chemistry, normal histology, and microscopic anatomy are held.

At the end of the second year there are examinations in anatomy, physiology, pathology, bacteriology, and pharmacology.

At the end of the third year there are examinations in medicine, surgery, and obstetrics, so far as these subjects have been pursued.

At the end of the fourth year will be the final examinations in medicine, surgery, obstetrics, gynecology, and the special branches in which instruction has been provided.

The examinations are partly written and partly oral, and include practical tests of laboratory and clinical work.

Each student must pass the examinations at the end of each year, before he can be admitted to the courses of the succeeding year.

CHARGES FOR TUITION.

The charge for tuition is two hundred dollars per annum, payable at the Treasurer's office, in semi-annual instalments, October 1 and February 1. There are no extra charges for instruction in any department or for laboratory courses, except for materials consumed. For those who do not possess microscopes, there is an annual charge of five dollars for the use of a microscope. The student is responsible for damage to the microscope thus rented. A deposit of ten dollars as caution money is required from each student at the time of his enrolment. The caution money is repaid to the student when he leaves, if there are no charges against him. Special charges are made for breakage and for damage to apparatus.

Inquiries may be addressed to the Registrar of the Johns Hopkins University.

APPENDIX.

I.

THE MARY ELIZABETH GARRETT FUND.*

TERMS OF THE GIFT, AS ACCEPTED BY THE TRUSTEES, FEBRUARY 21, 1893.

Miss Mary Elizabeth Garrett, in order to make up the sum of $500,000, which the Board of Trustees required should be secured as an endowment before the Medical School of the University was opened, has contributed to that fund the sum of $306,977 upon the following terms, which have been agreed to by the University:

1. That women shall enjoy all the advantages of the Medical School of the Johns Hopkins University on the same terms as men, and shall be admitted on the same terms as men to all prizes, dignities or honors that are awarded by competition, examination or regarded as rewards of merit.

2. That not more than $50,000 of the original endowment of $500,000 shall be expended on a building or buildings; and that in memory of the contributions of the Committees of the Women's Medical School Fund, this building, if there be but one, or the chief building, if there be more than one, shall be known as the Women's Fund Memorial Building.

3. That the Medical School of the University shall be exclusively a graduate school as hereinafter explained, that is to say: That the Medical School of the Johns Hopkins University shall form an integral part of the Johns Hopkins University, and like other departments of the University, shall be under the management and control of the Trustees of the said University; that it shall provide a four years' course, leading to the degree of Doctor of Medicine; that there shall be admitted to the School those students only who by examination or by other tests equally satisfactory to the Faculty of the Medical School (no distinction being made in these tests or examinations between men and women), have proved that they have completed the studies included in the Preliminary Medical Course (Group Three, Chemical-Biological Course) as laid down in the University Register (but this condition is not meant to restrict the Trustees from receiving as hearers, but not as candidates for the degree of Doctor of Medicine, those who have received the degree of Doctor of Medicine, or its equivalent, in some school

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* So designated by the Trustees, December 24, 1892.

of good repute); and that the degree of Doctor of Medicine of the Johns Hopkins University shall be given to no Doctors of Medicine who have not proved by examination or by other tests equally satisfactory to the Faculty of the Medical School that they have completed the studies included in the Preliminary Course, besides completing the course of instruction of the Medical School of the Johns Hopkins University.

The aforegoing provisions shall not be construed as restricting the liberty of the University to make such changes in the requirements for the admission to the Medical School of the Johns Hopkins University or to accept such equivalents for the studies required for admission to this school as shall not lower the standard of admission specified in this clause: provided that the requirements in modern languages other than English shall not be diminished, and provided also that the requirements in non-medical scientific studies shall include at least as much knowledge of natural science as is imparted in the three minor courses in science now laid down in its university register, the subjects and arrangements of these scientific studies being subject to such modifications as may from time to time seem wise to its Board and to the Faculty of the Medical School, but being at all times the same for all candidates for admission. (For such requirements always see University Register.)

4. That the terms of this gift and the Resolutions of October 28th, 1890, by which the Trustees accepted the gift of the Woman's Medical School Fund, shall be printed each year in whatever annual calendars may be issued announcing the courses of the Medical School.—See appended Resolutions.

5. That there shall be created a committee of six women to whom the women studying in the Medical School may apply for advice concerning lodging and other practical matters, and that all questions concerning the personal character of women applying for admission to the School, and all non-academic questions of discipline affecting the women studying in the Medical School shall be referred to this committee, and by them be in writing reported for action to the authorities of the University; that the members of this committee shall be members for life; that the committee, when once formed, shall be self-nominating, its nominations of new members to fill such vacancies as may occur being subject always to the approval of the Board of Trustees of the University.

6. That in the event of any violation of any or all of the aforesaid stipulations, the said sum of $306,977 shall revert to her, or such person or persons, institution or institutions, as she by testament or otherwise may hereafter appoint.

It will be observed that by the tenor of the aforegoing terms no university course will be in any way modified by any conditions attached to her gift. Those conditions relate exclusively to preparation for the Medical School, and have received, in the shape in which they are now presented, the unanimous approval of the Medical Faculty of the University.

The terms of admission to the Medical School of the University as formulated and interpreted by the Medical Faculty of the University, February 4, 1893, and here subjoined, are therefore in entire accordance with the terms of her gift.

(Signed) MARY E. GARRETT.

REQUIREMENTS FOR ADMISSION TO THE MEDICAL SCHOOL OF THE JOHNS HOPKINS UNIVERSITY, UNANIMOUSLY APPROVED BY THE MEDICAL FACULTY, FEBRUARY 4, 1893.

A course of four years' instruction will be provided leading to the degree of Doctor of Medicine.

To this course there will be admitted as candidates for the degree:

1. Those who have satisfactorily completed the Chemical-Biological Course which leads to the A. B. Degree in this University.

2. Graduates of approved Colleges or Scientific Schools who can furnish evidence: (*a*) That they have a good reading knowledge of French and German; (*b*) That they have such knowledge of Physics, Chemistry and Biology as is imparted by the regular Minor Courses given in these subjects in this University.

3. Those who give evidence by examination that they possess the general education implied by a degree in arts or in science from an approved College or Scientific School, and the knowledge of French, German, Physics, Chemistry and Biology, already indicated.

By approved Colleges and Scientific Schools are meant those whose standard for graduation shall be considered by this University as essentially equivalent to its standard for graduation in the undergraduate department.

It is to be understood that at least one year's study in the Chemical and Biological Sciences in their immediate relations to medicine shall be required from students after their entrance to the medical school.

II.

THE WOMEN'S MEDICAL SCHOOL FUND.

At a meeting of the Board of Trustees of the University, October 28, 1890, the following letter was presented:

"The committees formed for the purpose of raising a fund to procure the most advanced medical education for women, can now place at your disposal the sum of one hundred thousand dollars for the use of your medical school, if you will, by resolution, agree that women whose previous training has been equivalent to your preliminary medical course, shall be admitted to the school, when it shall open, upon the same terms which may be prescribed for men. There can be no doubt that women ought to be trained to act as nurses for sick women. There is as little doubt that a sufficient number of women ought to be educated and trained in such manner as to be fully able to care for sick women who may wish or ought to be treated by women. We have devoted ourselves to the furtherance of this object. We have reason to hope that a university which proposes to found a medical school intended to teach advanced methods in the treatment of those diseases which afflict mankind, will not refuse to women the opportunity of learning such methods. There is now a general interest in our movement. In order that this interest may be sustained we ask you to consider our offer at the earliest possible period.

NANCY MORRIS DAVIS,
Chairman of the Baltimore Committee."

The following minute was adopted by the Trustees:

The President and Board of Trustees of the Johns Hopkins University have received from Mrs. Nancy Morris Davis, chairman of one of the committees formed for the purpose of raising a fund to procure the most advanced medical education for women, the gratifying intelligence that $100,000 has been raised for the use of their intended Medical School, and is at their disposal, if they will, by resolution, agree to the terms upon which the money was contributed by its donors.

These terms are that this Board, if it accepts the funds thus raised, shall agree, by resolution, that, when its Medical School shall be opened, women whose training has been equivalent to the preliminary medical course prescribed for men, shall be admitted to such school upon the same terms as may be prescribed for men.

The offer to this University of the particular fund is the free voluntary act of women residing in this State and in other states, made without the suggestion or solicitation of this Board, and we accept it under and subject to the terms which are made a part of the gift, with the understanding and declaration, however, that such preliminary training in all its parts shall be obtained in some other institution of learning devoted, in whole or in part, to the education of women, or by private tuition.

The fund so contributed shall be invested and known as "The Women's Medical School Fund," and that fund, and all interest to accrue thereon, and all additions made thereto for the same purpose, shall remain invested for the purposes of increase only until, with its aid as a foundation, a general fund has been accumulated amounting to not less than $500,000, and sufficient for the establishment and maintenance of a Medical School worthy of the reputation of this University and fully sufficient as a means of complete medical instruction. Then, and not until then, will a Medical School be opened by this University; and then, and not until then, will the gift now offered be used by this University; and then, and not until then, will the terms attached thereto be operative.

The utility of a training school for women nurses has been demonstrated by the experience and practice of the Johns Hopkins Hospital, and by the necessities of home life among our people.

This Board is satisfied that in hospital practice among women, in penal institutions in which women are prisoners, in charitable institutions in which women are cared for, and in private life, when women are to be attended, there is a need and place for learned and capable women physicians; and that it is the business and duty of this Board, when it is supplied with the necessary means for opening its proposed Medical School, to make provision for the training and full qualification of such women for the abundant work which awaits them in these wide fields of usefulness.

Nothing contained in this minute shall be construed as abridging, in any manner, the right of the Board of Trustees of the Johns Hopkins University to make such rules and regulations as they may deem necessary for the government of its School of Medicine, when it is organized; and in making such rules and regulations, the terms of this minute shall always be respected and observed.

WOMEN'S COMMITTEE OF THE MEDICAL SCHOOL, APPOINTED BY MISS GARRETT, DECEMBER 22, 1892.

MRS. HENRY M. HURD,
MRS. IRA REMSEN,
MRS. WILLIAM OSLER,
MISS M. CAREY THOMAS,
MISS MARY M. GWINN,
MISS MARY E. GARRETT.

Their duties are stated in paragraph 5 of the letter printed above.

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